Comment (Case 3700) – On the proposed designation of *Diplodocus carnegii* Hatcher, 1901 as the type species of *Diplodocus* Marsh, 1878 (Dinosauria, Sauropoda): application should be rejected based on new data

(see BZN **73**(1): 17–24 [Case]; BZN **73**(2–4): 127, 128, 129–131, 134–135)

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1. In a newly published abstract concerning the temporal distribution of Morrison Formation diplodocid sauropods, Tschopp et al. (2016) retreat from their previous treatment of *Diplodocus longus* as a nomen dubium (Tschopp et al., 2015) by suggesting that *D. longus* could be ancestral to *D. carnegii* and *D. hallorum*, judging from an overview of the temporal distribution of Morrison diplodocid specimens. When putting specimens of Morrison diplodocines into a stratigraphic context, the type locality of *D. longus* at Felch Quarry 1 in Garden Park, Colorado is situated low in the Brushy Basin Member of the Morrison Formation in contrast to the localities of known specimens of *D. carnegii* and *D. hallorum*, which are situated in the middle section of the Brushy Basin Member (see Turner & Peterson 1999, p. 86, fig. 7). Moreover, the fact that *Galeamopus* specimens partially overlap with the earliest known occurrences of *Diplodocus* (the *Galeamopus* skull USNM 2673 was found at the type locality of *Diplodocus*, and the *Galeamopus* skulls AMNH 969 and SMA 0011 were found lower in the Morrison Formation in the Salt Wash Member) lends support to the conclusion by Tschopp et al. (2016) that *D. longus* might be ancestral to *D. carnegii* and *D. hallorum*, because the occurrence of the diplodocine skulls CM 11255 (considered possibly belong to *Barosaurus*; Melstrom et al., 2016), CM 3452, CM 11161, and USNM 2672 within the range of unequivocal *Diplodocus* specimens suggests that *Barosaurus*/*Kaatedocus*-like diplodocines stratigraphically co-existed with *Diplodocus*/*Galeamopus*-like forms.

2. Based on the as-yet-unpublished results of the abstract by Tschopp et al. (2016), I urge the Commission to reject the proposals in Case 3700 (Tschopp & Mateus, 2016) if the "*Morosaurus*" *agilis* holotype (USNM 5384) is confirmed to be from the same individual as YPM 1920 as stated by Tidwell et al. (2005).

References

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